

Method and System for Equalizing Transmission Line Loss Of A Laser Drive Signal

Abstract Of The Disclosure

A circuit for equalizing transmission line loss of a laser drive signal includes a laser driver, a laser diode, and a transmission line for connecting the laser driver to the laser diode. The laser driver includes a differential pair of transistors, a modulation current source and two sets of source impedance circuits. Each set of source impedance circuits is configured to produce a frequency response for compensating the frequency response of the lossy transmission line at a distinct corresponding operating frequency. The set of source impedance circuits may be tuned to generate approximately zero impedance when the operating frequency is approximately zero. Hence a lower voltage power supply can be used to power both the laser driver and the laser diode, which in turn reduces the power consumption of the circuit.